REMARKS

Claims 1-17, 19 and 20 remain in this application. In the Office Action dated April 16, 2003, Claims 1-20 were rejected under 35 U.S.C. §112, second paragraph, for indefiniteness, Claims 1-2, 10-11 and 16-20 were rejected under 35 U.S.C. §102(e) as being anticipated by U.S. 6,409,332 to Yraceburu *et al.* ("Yraceburu"), and Claims 4-9 and 12-15 were rejected under 35 U.S.C. §103 as obvious over Yraceburu in view of U.S. 4,878,071 to Bibl *et al.* ("Bibl").

Figure 2A has been amended to correct the obvious numbering error identified by the Examiner. Specifically, the reference number that identifies the "dynamic tensioning device" (see p. 7, lines 4-16 of Specification) has been changed from "29" to "290." The Specification has been amended to correct obvious errors and inconsistencies in the reference numbers. It is believed that the Examiner's objections to the Drawings and Specification are now overcome.

In the claims, Claim 18 has been cancelled, and Claims 1, 8, 16, 19 and 20 have been amended to more particularly define the present invention. With the entry of these amendments, it is believed that the Examiner's §112 rejections are now overcome. For the reasons described below, it is also believed that the Examiners §102 and §103 rejections are overcome, and that the present claims are all in condition for allowance.

No new matter has been added by way of the present amendments to the specification, claims, and drawings.

It is believed that the §102(e) rejections are overcome, since the cited Yraceburu fails to teach or suggest certain limitations of independent Claims 1 and 16. Specifically, Yraceburu does not disclose a "a porous sheet positioned between the belt and the vacuum table" (Claim 1), nor does Yraceburu disclose the step of "generating a vacuum with a vacuum table for holding the substrate on a transport belt, the vacuum table including a vacuum source and a thin sheet of a porous material positioned between the vacuum source and the transport belt" (Claim 16).

Yraceburu discusses a "vacuum platen system" 301, which includes an integral "vacuum box" 307 sub-system, and a "platen member" 311 mounted atop the vacuum box. The platen member 311 has an array of ports 315 extending vertically downwards to the top of the vacuum box 307. The ports 315 on the platen have a relatively large diameter so that they do not clog with debris. The platen 311 and vacuum box 307 are fluidically coupled by a "lid-filter"

structure 317. This lid-filter 317 is "essentially an air-flow filter" comprised of a "filter material" 321. A portion of this filter material 321 is disposed on the platen-side of the structure, and serves as the "floor" to each of the platen ports 315. A "relatively large volume" of the filter material 321 is located on the vacuum-side to trap debris without clogging the system. In a preferred embodiment, the lid-filter is layered, or graduated, from being relatively porous proximate the underside of the platen (318) to relatively dense proximate the vacuum (323). (See Yraceburu at col. 5, lines 4-59, col. 6, lines 6-14).

The present invention, on the other hand, is directed to a much different system and related method which comprises a printing system having a transport belt provided with a plurality of holes extending through the thickness of the belt; a vacuum table which generates a vacuum, and is positioned on one side of the transport belt; and a "porous sheet" positioned between the belt and the vacuum table. Unlike the Yraceburu system, which utilizes a complicated platen member/vacuum box subsystem, the present invention employs a transport belt having larger-diameter holes (as opposed to the Yraceburu system, which utilizes a "platen member" having larger-diameter ports extending through to the vacuum box), and a "porous sheet" disposed between the transport belt and the vacuum source (in contrast to the lid-airflow filter arrangement of Yraceburu). The porous sheet acts as a flow resistor, distributing the vacuum over a large region of the transport belt, while maintaining the vacuum pressure at a relatively constant level, even when the area of the transport belt covered by the substrate varies. Advantages of the present system over the substantially more complicated platen/vacuum box arrangement of Yraceburu include a efficient and straightforward design that can be readily and inexpensively implemented in new printing systems, and can easily be retrofit into existing printing systems.

Since the Yraceburu patent fails to disclose a "porous sheet," as presently claimed, the Examiner's §102(e) rejections are overcome.

Likewise, the Examiner's §103 rejections are overcome, since neither Yraceburu nor Bibl, considered alone or in combination, teach or suggest the "porous sheet" of the present claims. In fact, Yraceburu actually teaches away from the porous sheet of the present invention by teaching a "lid-filter" structure having a "relatively large volume" of filter material. Preferably, we are told, this filter material is layered, or graduated from a coarser material at the

platen-side to a fine material at the vacuum-side. As shown and described in the Yraceburu patent, it is implicit that the "lid-filter" has a substantial thickness, and is fundamentally different from the thin sheet of porous material used in the present invention.

These differences between the Yraceburu patent and the present invention are understandable when one considers the contexts of these different printing systems. The Yraceburu patent is related to printing systems for "high quality graphics and photographic type printing where the user may wish to print the entire page with extremely small margins." The Yraceburu patent teaches that the "lid-filter" arrangement "removes ink mist, paper dust, and other known ink-jet process contaminants" while simultaneously restricting airflow so that "there will be relatively little airflow through the open portion which could alter ink drop flight trajectories near the paper edges or lead to excessive loss of vacuum pressure at the edges." The present invention, on the other hand, is directed to a printing system that is easily adaptable for printing on a wide variety of substrates, including both large and small substrates, flexible and non-flexible substrates, as well as continuous (*e.g.* roll-fed) substrates and non-continuous substrates. The porous sheet system of the present invention provides a simple and efficient way to maintain a desired vacuum level when printing on a multiplicity of different types of substrates.

The reference in Yraceburu to "sintered materials such as of plastics or metals" as one possible option, among numerous others, for fabricating the "lid-filter" does not alter the fact that Yraceburu fails to teach or suggest the use of a "porous sheet," as is presently claimed. Moreover, the cited Bibl patent does not overcome the basic deficiency in the Examiner's §103 rejection, since Bibl similarly fails to teach or suggest a "porous sheet" disposed between the transport belt and vacuum source, as recited in the present claims.

For the foregoing reasons, it is respectfully submitted that independent Claims 1 and 16, and dependent Claims 2-15, 17, 19 and 20, are all allowable.

Information Disclosure Statement

An Information Disclosure Statement (IDS) is being filed concurrently herewith. Entry of the IDS is respectfully requested.

CONCLUSION

In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

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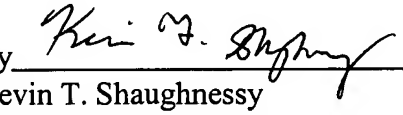
By 

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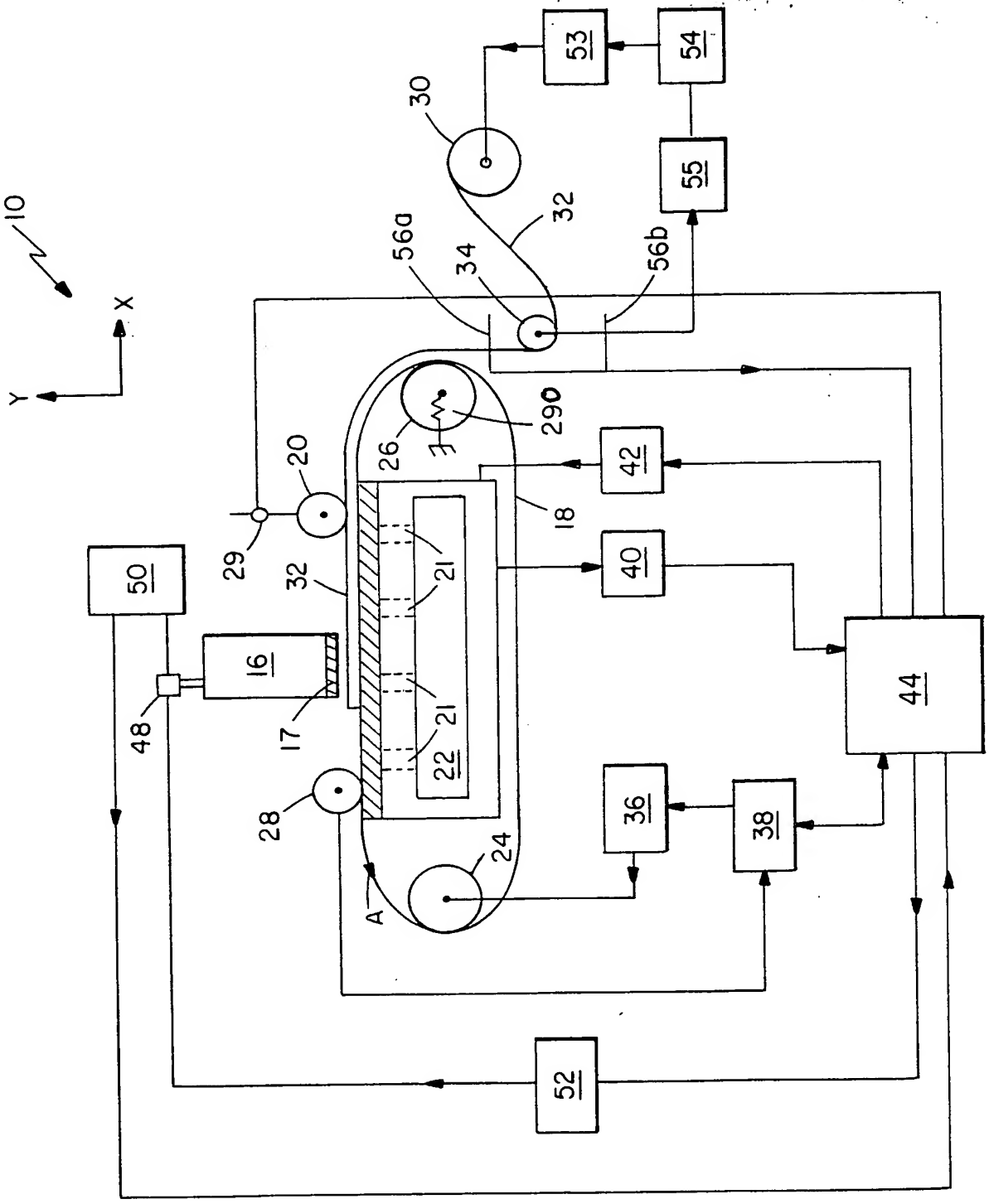

FIG. 2A